



STATE OF MARYLAND

DMMH

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December 22, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:50 Reporting for the week ending 12/18/10 (MMWR Week #50)

CURRENT HOMELAND SECURITY THREAT LEVELS

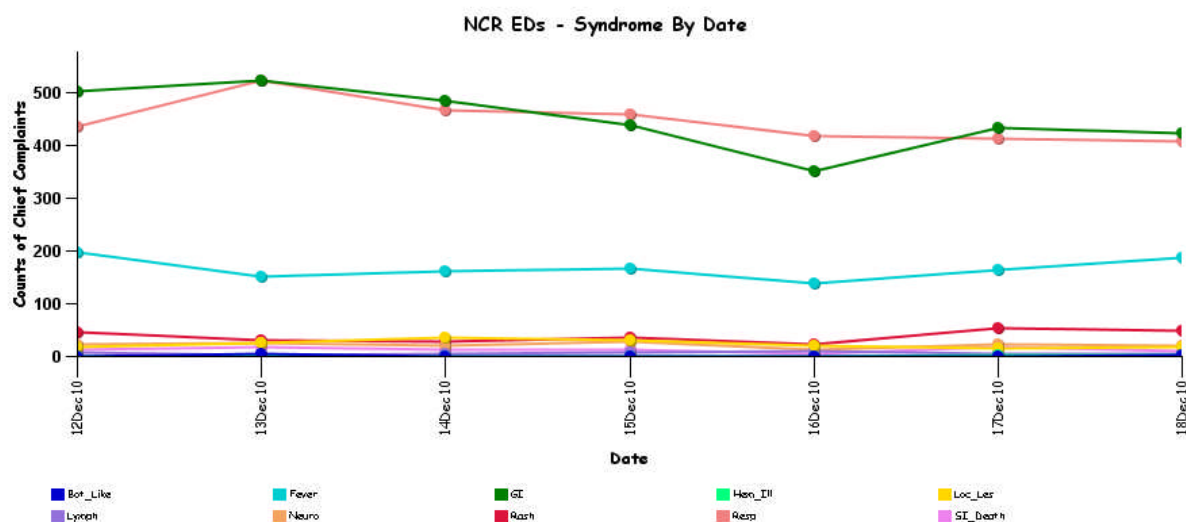
National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

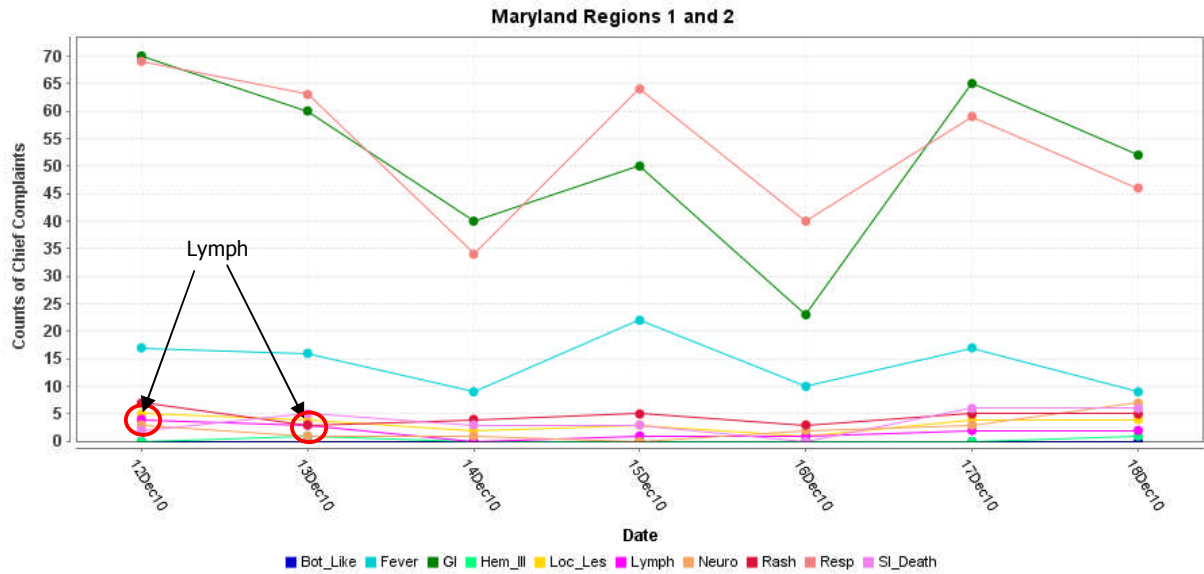
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

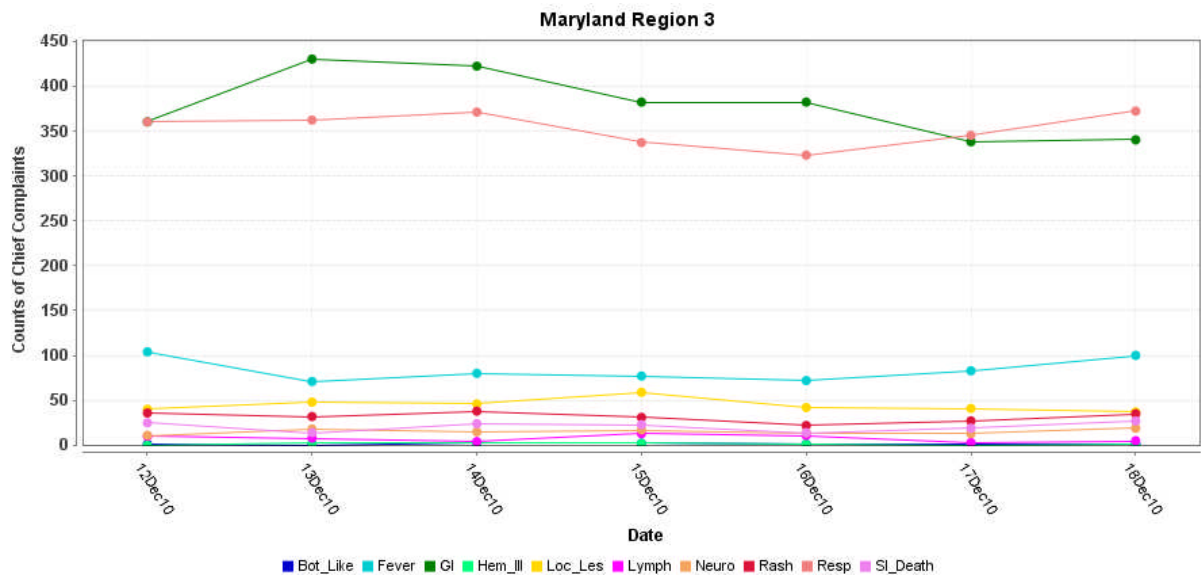


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

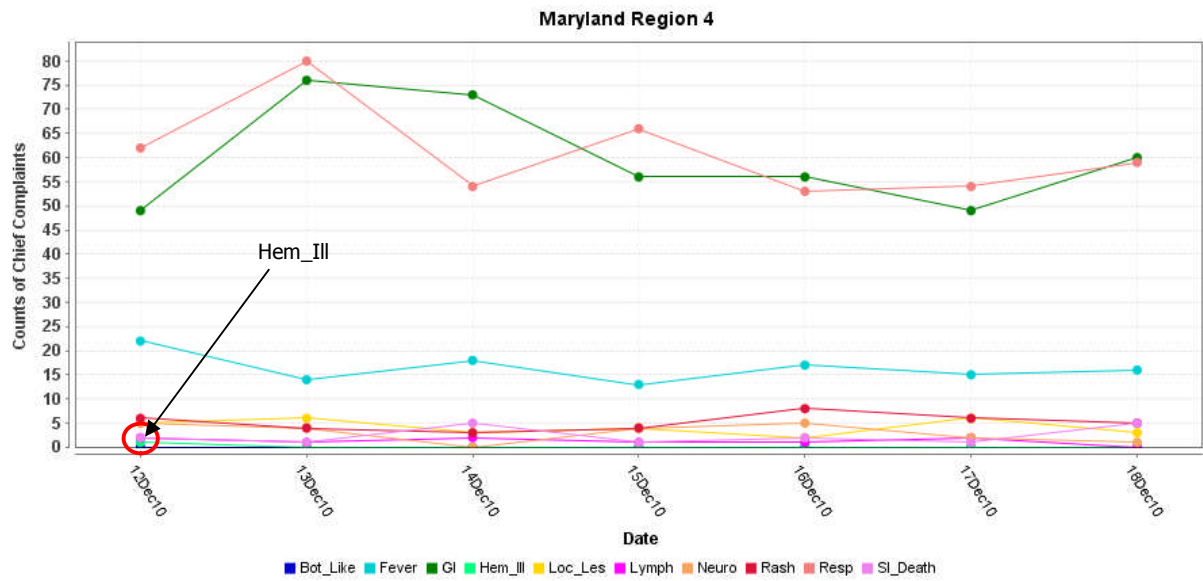
MARYLAND ESSENCE:



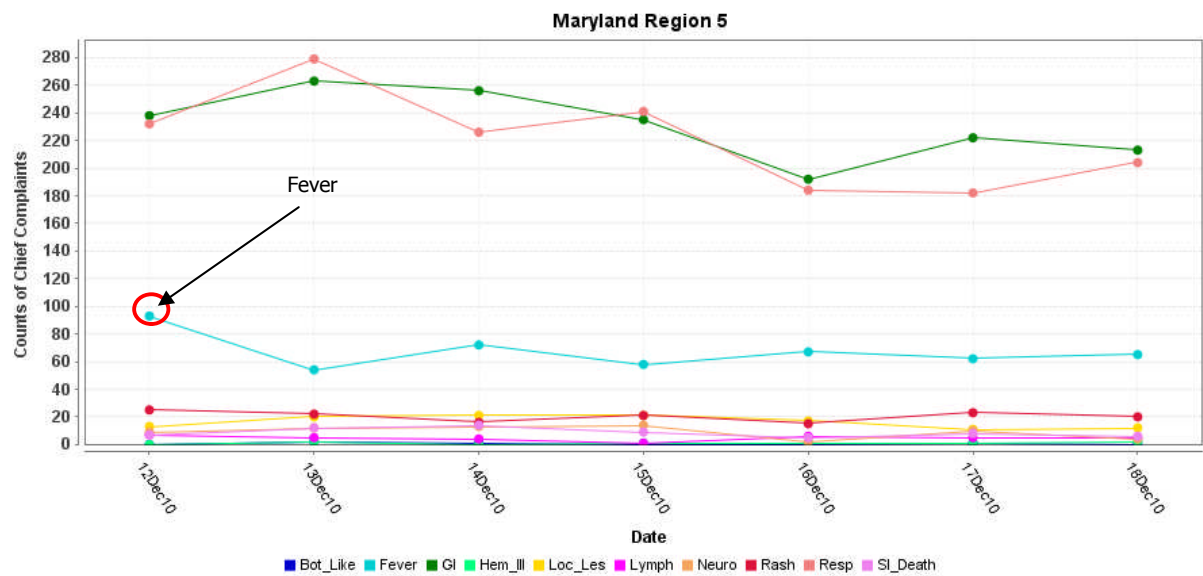
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

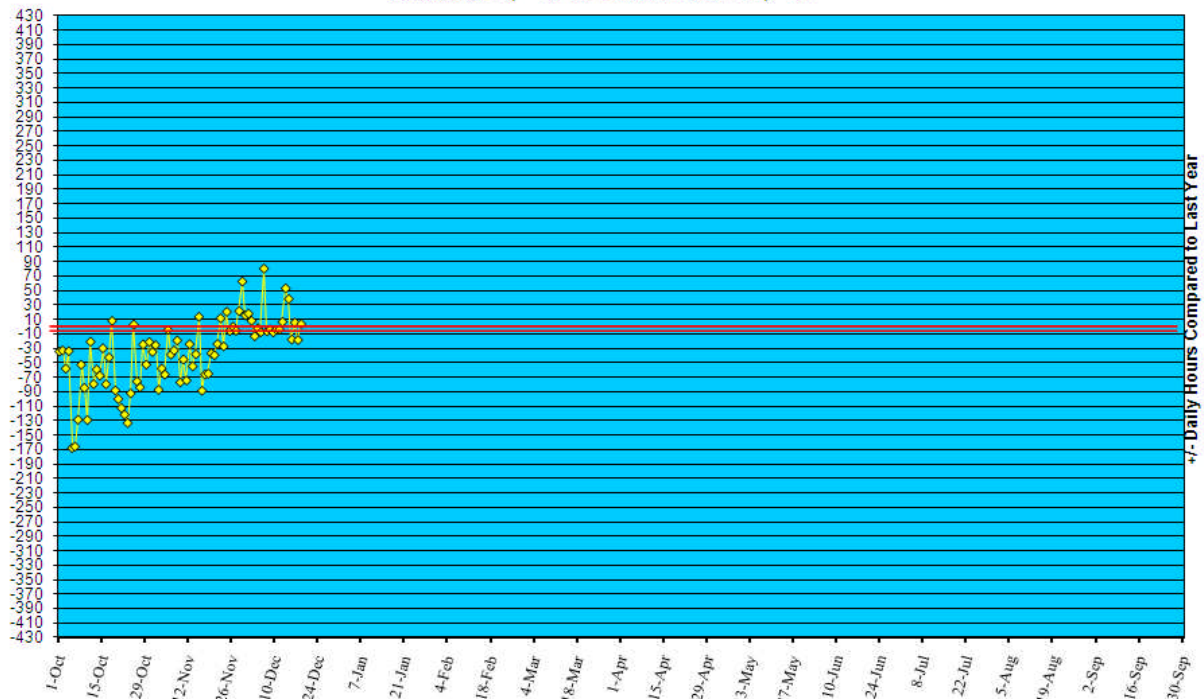


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to December 18, '10



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in November 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (December 12 – December 18):	4	0
Prior week (December 05 – December 11):	7	0
Week#50, 2009 (December 13 – December 19, 2009):	7	0

Five outbreaks were reported to DHMH during MMWR Week 50 (December 12 – December 18, 2010):

4 Gastroenteritis outbreaks

- 1 outbreak of GASTROENTERITIS in a Nursing Home
- 2 outbreaks of GASTROENTERITIS in Schools
- 1 outbreak of GASTROENTERITIS in a Camp

1 Respiratory illness outbreak

1 outbreak of INFLUENZA in an Institution

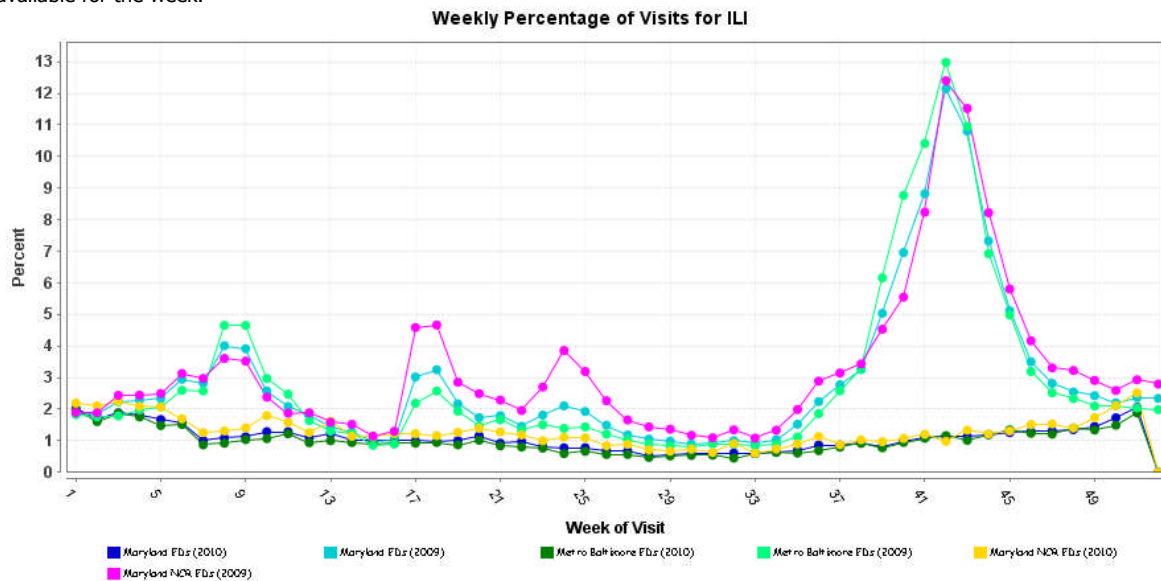
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was SPORADIC with minimal intensity for Week 50.

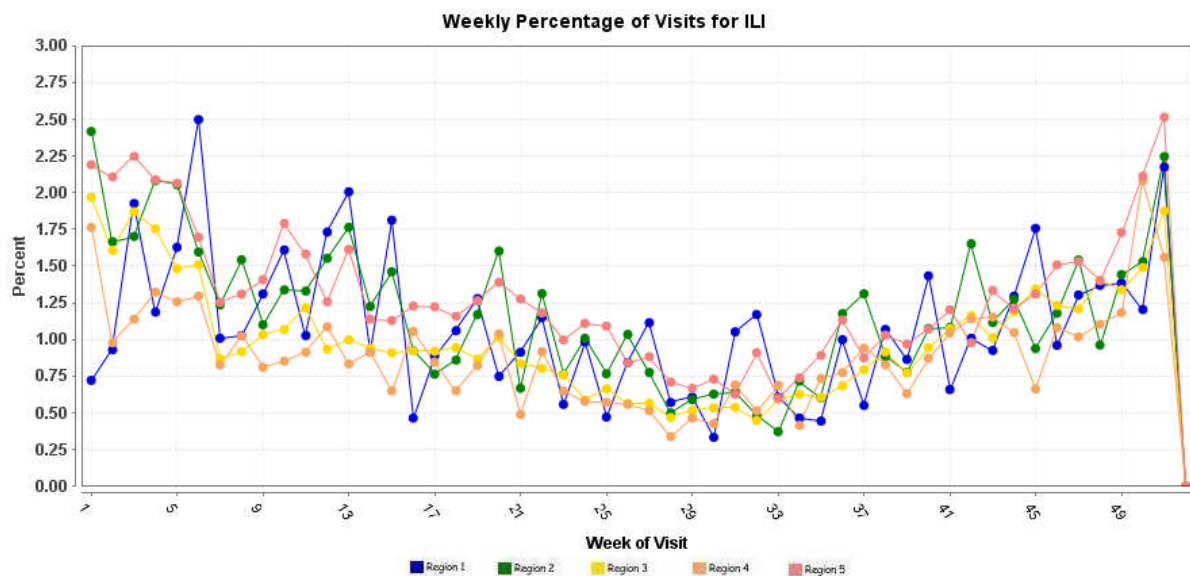
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



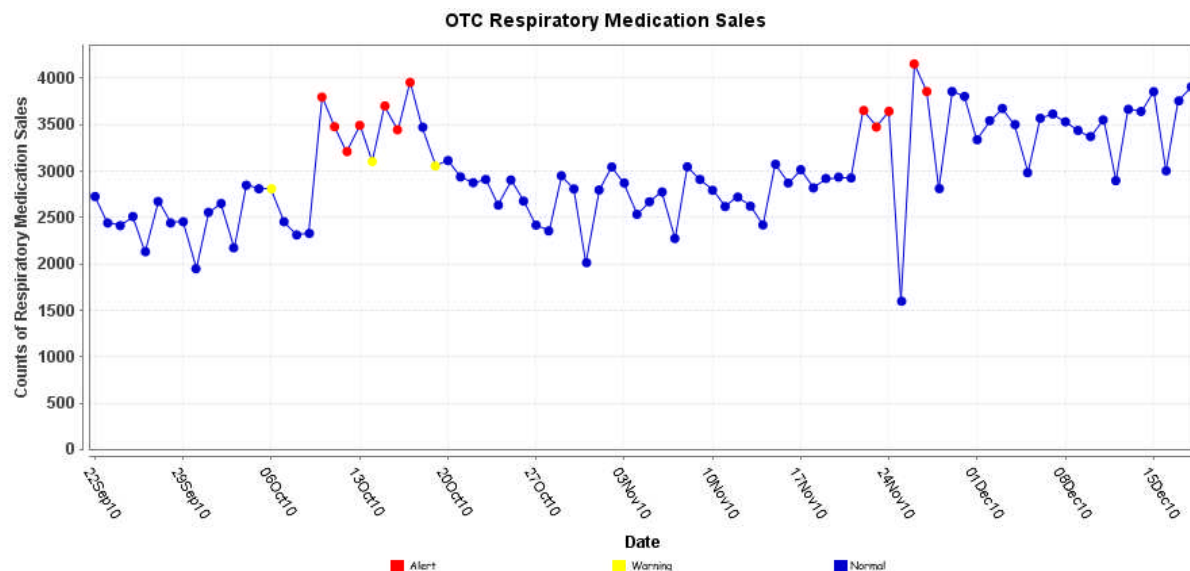
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of December 9, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 510, of which 303 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, WILD BIRD (SOUTH KOREA): 12 December 2010, South Korean quarantine officials found 2 dead eagle owls infected with the virulent strain of bird flu in the central western part of the country on Friday [10 Dec 2010]. The farm ministry, however, said that the discovery of the owls did not mean South Korea was affected by the disease, since no domestically raised ducks and chickens have become sick from the highly contagious influenza. Exports of poultry will not be affected by the discovery, it stressed. The wild birds were found dead in Seosan, 151 km south of Seoul. Local quarantine officials carried out routine tests and discovered the birds had the H5N1 strain of the influenza virus, the ministry said. Bird flu is an air-borne disease that is usually transmitted between animals. The disease can spread to humans, but no human cases have been reported in the country so far. The country's quarantine authorities, meanwhile, have stepped up an existing bird flu prevention campaign after a wild duck on the Mangyeong River tested positive for the influenza virus earlier in the week. The country was hit a total of 3 times by avian influenza, with the latest outbreak occurring in April of 2008 and resulting in a record 8.46 million birds being culled at a cost of around 264 billion won [USD 215.7 million]. Previous outbreaks took place in the winter months of 2003-2004 and 2006-2007.

NATIONAL DISEASE REPORTS

There are no national disease reports for MMWR Week 50.

INTERNATIONAL DISEASE REPORTS

CHOLERA (HAITI): 14 December 2010, A total of 2,323 people have died and 10,4 614 have been sickened so far in the cholera epidemic besieging Haiti since mid-October 2010, authorities said Mon 13 Dec 2010. According to figures supplied by the Public Health and Population Ministry, in the last 3 days 130 people have died from cholera around the country. Since the outbreak began, 178 people have died in the capital and 748 in the northern province of Artibonite, where the disease was 1st noticed. The epidemic, in addition, has resulted in the hospitalization of 50,923 people, while another 49 330 have received medical attention but were allowed to return home. The numbers also show that the disease has been the most lethal in the southern province of Grand'Anse, where 129 people have died from among 391 confirmed cases. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

CHOLERA (DOMINICAN REPUBLIC): 14 December 2010, The number of cholera cases in the Dominican Republic has risen to 32, but with no fatal cases from the outbreak, news reports said Mon 13 Dec 2010. Health officials have introduced new measures to slow the advance of the cholera epidemic from neighboring Haiti, which is suffering a much more severe outbreak of the potentially lethal disease. President Leonel Fernandez this week was to receive a visit from Haitian President Rene Preval for talks on coordinating anti-cholera efforts across the whole of Hispaniola, the Caribbean island shared by the 2 countries. Haiti and the Dominican Republic share a porous border of some 376 kilometers (234 miles). The Santo Domingo government also forbids use of water from the Artibonite River, which traverses most of the island and runs along much of the Dominican-Haitian border. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

CYSTICERCOSIS (ARGENTINA): 14 December 2010, 4 cases of cysticercosis have been confirmed. This parasitic disease is not endemic for this region. There are more (suspected) cases under observation, and there is a general recommendation for being quite careful when eating fresh fruits and vegetables. One of the infected persons is from Puerto Madryn, and the 3 remaining are from Virch. All cases had been detected nearly one month ago by the Infectious Diseases, Neurology, and Pediatrics Service in Adolfo Margara Local Hospital in Trelew, and central Public Health authorities have been notified about these cases. The condition is currently affecting 2 adults and 2 8-year old children, all of them foreign-born. "In the case of the girl, she was admitted because of seizures, and the CT scan revealed the presence of parasitic cysts in her brain," explained Dr. Juan Carlos Villalba, one of the physicians in charge of the Infectious Diseases Division in the Local Hospital. Dr. Villalba pointed out that there has been at least one case of "neurocysticercosis," which corresponds to central nervous system involvement by the parasite, and it is one of the most severe consequences of this infection. He also indicated that this is a real concern from the epidemiological point of view, since persons infected belong to families working in the field growing vegetables and fruits in the rural areas. The flood irrigation method used in the valley may be an aggravating factor, since this may lead to the dissemination of the parasite's eggs in the ground and in vegetables, and these eggs may be viable for a long period of time, since they are quite resistant. "This situation is very important from an epidemiological point of view, since this infection was not present in our community," emphasized Dr. Villalba, and he added that "the population must be warned about this," in order to take proper precautions. It is worth mentioning that there are no drugs available in the country for fighting this infection. Albendazol and Praziquantel are not available in Argentina. This parasitic disease (taeniasis) is acquired by ingesting poorly cooked pork meat, and the larval form (cysticercosis) is caused in humans by the ingestion of *Taenia solium* (also known as solitary worm) eggs, which are eliminated in feces of infected persons. The transmission cycle is anus-hands-mouth. Cysticercosis is a parasitic infection caused by migration of the parasite, which may locate itself in different organs, and it is most severe when there is invasion of the central nervous system and the eyes. The CNS invasion is called neurocysticercosis, and sometimes patients may undergo surgery, since this condition is potentially lethal, and there are no drugs available against it in this country. If the eye involvement is severe, then the condition leads to blindness. Extreme care is advised when consuming fresh fruits and vegetables from the valley. These must be submerged for 20 minutes in a recipient containing 10 cc liquid detergent diluted in 10 liters of water. Once the time is over, vegetables and fruits must be rinsed, and they will be ready for use. In the case of cooked fruits and vegetables, there is no risk, since high temperature destroys the eggs. Dr. Villalba requested immediate coordination between sanitary and political authorities in order to stop the transmission. He explained that "proper waste disposal" measures must be implemented, and, for achieving this, it is necessary that households should have sanitary services available. It is impossible to obtain proper samples under the current conditions. Dr. Villalba stated that discussion must take place in the municipality, and "candidates must also participate because, since they are about to make new laws, they must be familiar with our community's problems. An urgent discussion is needed in order to establish preventive measures and cut the transmission chain." He added that "the eggs may remain on the floor, and they are quite resistant, so appropriate measures must be taken immediately," to prevent the occurrence of new cases.

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmd.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmd.maryland.gov/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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